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Notice of Allowability

Application No.

10/604,071

Examiner

Tuyen To

Applicant(s)

BAJUK ET AL.

Art Unit

2825

TT

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 02/02/2006.
2. ☒ The allowed claim(s) is/are 1-20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☒ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


JACK CHIANG
 SUPERVISORY PATENT EXAMINER

DETAILED ACTION

1. This is a response to the amendment and remarks/arguments filed on 02/02/2006.
2. Claims 1-20 are pending.
3. Claims 1, 6, 9, 13, 16, and 19 are amended.
4. The amended specification has been approved.
5. Claims 21-23 are cancelled.
6. Applicant's election of 1-21 in the reply filed on 02/02/2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

EXAMINER'S AMENDMENT

7. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
8. Authorization for this examiner's amendment was given in a telephone interview with James E. Boice (Reg. No. 44,545) on 02/10/2006 and on 02/17/2006.
9. **The application has been amended as follows:**

In the claims

Claim 1, lines 3-4, replace "the signal interconnect's type" with -- a signal interconnect type --.

Claim 8, line 1, replace "repeated" with --repeatedly--.

Claim 8, line 2, replace " to make a more flexible logic" with -- to create a flexible logic design--.

Claim 9, line 4, replace "the signal interconnect's type" with -- a signal interconnect type--.

Claim 15, line 2, replace " to make a more flexible logic" with -- to create a flexible logic design--.

Claim 16, lines 4-5, replace "the signal interconnect's type" with -- a signal interconnect type--.

In the Specification

The following paragraph replaces paragraph [0009] filed on 02/02/2006.

[0008] The present invention is directed to a method and system for storing and modifying register transfer language (RTL) described logic types. Upon a declaration of a signal interconnect, a language extension of a register transfer language is defined for the signal interconnect based on the signal [[interconnect"s]] interconnect type. The language extensions allow different signal interconnect types, such as those targeted to field programmable gate arrays (FPGA) and standard cells, to be stored in a same RTL file. This storage facilitates changing logic types, thus ultimately resulting in an integrated circuit (IC) that is either smaller (using more standard cells) or more flexible (using more FPGA cells). Repartitioning of the RTL can be performed within the physical design cycle, in which wiring, timing and placement of components (information) is performed before masking out the final chip design.

Abstract

The attached abstract replaces all previous abstract. (Note: the title of the invention has been removed from the abstract because title of invention should not be in the abstract).

Allowable Subject Matter

10. **Claims 1-20** contain allowable subject matter.

11. The following is a statement of reasons for the indication of allowable subject matter:

In a method and system for creating a logic design using a register transfer language, *the prior art of record does not teach or fairly suggest* upon a declaration of a signal interconnect, defining a language extension of a register transfer language for the signal interconnect based on a signal interconnect type; storing different signal interconnect types in a same design file; and creating a logic design by partitioning between different types of cells in the logic design, wherein the different types of cells are based on the different signal interconnect types as described by the language extensions.

12. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

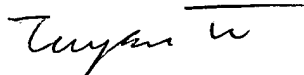
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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuyen To whose telephone number is (571) 272-8319. The examiner can normally be reached on 9:00am-5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Chiang can be reached on (571) 272-7483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Tuyen To

Patent examiner

AU 2825


JACK CHIANG
SUPERVISORY PATENT EXAMINER